



Vibrational temperatures in Saturn's atmosphere.

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The Lyman alpha and beta lines are in coincidence with lines of the H₂ Lyman and Werner systems. Some of these lines are hot lines from $v=1$ and $v=2$ vibrational levels. We have calculated the effect of these hot lines on the Lyman alpha and beta dayglow in the case of Saturn using a Feautrier radiative transfer code. In the jovian atmosphere, the vibrational temperatures are not equal to the kinetic ones. Considering this fact we have calculated the evolution of the Lyman alpha and beta dayglow with the vibrational temperatures in the case of Saturn.